AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended): A piezoelectric drive unit for generating a rotating drive movement comprising: a stator (1), a rotor (2,5,7) rotatable about a rotational axis (11) with respect to the stator, and drive elements taking the form of several piezoelectric actuators (8), an annular gap (4') filled with a fluid medium (10) that is formed between the facing surfaces of the stator (1) and the rotor (2,5,7),a plurality of piezoelectric actuators (8a-8f) arranged adjacent to the gap which, on electrical activation according to a predetermined scheme or a predetermined function, undergo an essentially radial change in length in the direction of the gap (4'), such that the mechanical energy provided by the actuators is transmitted to the fluid medium as flow energy, wherein the flow energy of the fluid medium is transmitted to the rotor and transformed into a rotating drive movement of the rotor (2; 5;7),

characterized in that

the rotor (2;5;7) is supported in the stator using a hydrodynamic bearing system, wherein the gap (4') forms part of the gap (4) of the hydrodynamic bearing system and the

hydrodynamic bearing comprises a grooved pattern on its bearing surfaces for building up a hydrodynamic pressure within the bearing gap when the rotor is rotated.

2. (Previously Presented): A piezoelectric drive unit according to claim 1, characterized in that the piezoelectric actuators (8a-8f) are disposed along the circumference of the gap (4').

3. (Previously Presented): A piezoelectric drive unit according to claim 1 characterized in that the stator (19) has a collar (20) that acts as a resonator and forms the outer limit of the gap, wherein a piezoceramic ring (21;22;23;24) that comprises several piezoelectric actuators (16;26;27;28) is arranged at the outside circumference of the collar (20).

4. (Previously Presented): A piezoelectric drive unit according to claim 1 characterized in that the piezoelectric actuators (8a-8f) are disposed on one plane.

5. (Previously Presented): A piezoelectric drive unit according to claim 1 characterized in that the piezoelectric actuators (8a-8f) are segmented in form.

6. (Previously Presented): A piezoelectric drive unit according to claim 1 characterized in that a part (5) of the rotor has rib-shaped projections (12) distributed over its circumference which face the gap (4') and are circulated with

the fluid medium.

7. (Previously Presented): A piezoelectric drive unit according to claim 1 characterized in that the drive unit is designed as a spindle motor.

8. (Previously Presented): A piezoelectric drive unit according to claim 1 characterized in that the drive unit forms a part of a hard disk drive.

9. (Currently Amended): A method for generating a rotating drive movement for a drive unit comprising a stator (1) and a rotor (2;5;7), wherein a plurality of piezoelectric actuators (8) are used as drive elements, wherein the mechanical energy provided by the piezoelectric actuators (8a-8f) is transformed into flow energy (hydrodynamic energy) for a fluid medium (10), and the flow energy of the fluid medium is transmitted to the rotor and transformed into a rotating drive movement of the rotor (2;5;7),

characterized in that

the flow energy is generated within a bearing gap (4') that, together with a bearing gap (4), forms a part of a hydrodynamic bearing system <u>having groove patterns on its bearing surfaces</u> and that hydrodynamic pressure is built up in the bearing gap (4,4") through the rotation of the rotor (2;5;7), thus giving the bearing its load-carrying capacity.

10. (Previously Presented): A method according to claim 9, characterized in that the fluid medium is accommodated in the substantially annular gap (4'), wherein the piezoelectric actuators (8a-8f) are arranged and activated such that they generate a defined, directed flow of the fluid medium within the gap (4') and the rotor is set into rotation by the flow.

11. (Previously Presented): A method according to claim 9, characterized in that actuators (16;26;27;28) act on an annular resonator (20) and excite it to vibration such that a traveling wave is formed whose mechanical energy is transmitted as flow energy to the fluid medium found in the gap.

12. (Previously Presented): A method according to claim 9, characterized in that the flow in the gap (4') is directed transversely to the rotational axis (11) of the drive unit.

13. (Previously Presented): A method according to claim 9, characterized in that the piezoelectric actuators (8a-8f) are electrically activated according to a predetermined scheme or a predetermined function.

14. (Previously Presented): A method according to one claim 9, characterized in that piezoelectric actuators (8a+8d, 8b+8e, 8c+8f) are located opposite each other with respect to the rotational axis (11)and are driven in pairs.